

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) An isolated nucleic acid encoding a polypeptide comprising a subunit of a cation channel, the polypeptide:
  - (i) forming, with at least one cyclic nucleotide gated cation channel (CNG) alpha subunit, a cation channel having the characteristic of cyclic nucleotide-gating; and
  - (ii) comprising an amino acid sequence ~~having at least 95% sequence identity to~~ of SEQ ID NO:1.
2. (Canceled) The nucleic acid of claim 1, wherein the nucleic acid encodes a polypeptide comprising an amino acid sequence of SEQ ID NO:1.
3. (Currently amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a nucleotide sequence ~~having at least 90% sequence identity to~~ of SEQ ID NO:2 or SEQ ID NO:3.
4. (Canceled) The nucleic acid of claim 3, wherein the nucleic acid comprises a nucleotide sequence of SEQ ID NO:2 or SEQ ID NO:3.
- 5-7. (Canceled)
8. (Previously presented) An isolated nucleic acid encoding a cyclic nucleotide gated cation channel (CNG) 2B polypeptide, the nucleic acid comprising a nucleotide sequence of SEQ ID NO:2 or SEQ ID NO:3, or encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:1.
- 9-18. (Canceled)

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Examining Group

19. (Currently amended) An expression vector comprising the nucleic acid of claim 1 ~~or claim 7~~.

20. (Original) A host cell transfected with the vector of claim 19.

21-40. (Canceled)